Lead Arsenate. Snails and slugs may require the use of a baited poison. Dusts or sprays will be effective.

Sucking Insects - hard to spot and more damaging to the plant than the leaf eaters.

SNOW SCALE - tiny white insects usually infesting branches. Same appearance as if salt had been thrown at the plant and had stuck.

COTTONY CUSHION SCALE - two toned white, about 10 times the size of a mealy bug.

WAX SCALE - resembles small shell.

OTHER SCALES - look like brown or green scabs on underside of leaves and stems.

MEALY BUGS - about one quarter inch long including tail when full grown; makes cottony nests at twig joinings and under leaves.

APHIDS - infest new growth and buds causing malformation of blossoms and twisting and cupping of leaves. Insect is green or brownish and about the size of a pin head.

WHITE FLY - about the size of a gnat. Fly up in swarms when an infected bush is distrubed.

THRIPS - tiny and fast: leave silvery patches on leaves and cause buds to drop. A good indication of presence of one or several of the sucking insects is:

SOOTY MOLD - a black fungus growth on upper surface of leaves usually. This fungus grows in a residue left by most sucking insects. Kill the insect and the sooty mold will disappear. Sucking insects are controlled by the use of Nicotine, Malethion, or Oil as a spray.

OIL SPRAY - use only when temperature is between 50 degrees and 80 degrees: no more than three (3) times a year: no closer together than six (6) weeks. The same rules are true of any mixture of Oil and

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other insecticides.

MALATHION - do not use when temperature is apt to be over 85 degrees, or in middle of day. It is the opinion of many growers that Malathion is toxic to Hibiscus and should never be used. Other growers feel it can be used with safety in the cooler part of the day.

NICOTINE - relatively safe and very effective. All insecticide sprays for control of sucking insects must drench the plant and be applied particularly thoroughly underneath the leaves.

Soil Insects - most soil insects can be controlled with DDT; Chlordane; Toxaphene or Lead Arsenate except for NEMATODES. A nemacide must be used for these root burrowing insects which cause root knot. Nemagon and VC-13 are both effective if directions are carefully followed.

DISEASE

STRAP LEAF - a condition which causes deformation of leaves and blossoms. Leaves grow long and leathery. Blossoms may be missing petals. That this problem is due to nutritional deficiency is agreed. However, damage from weed killers often looks similar. Molybdenum seems to be the deficient element, but cause for this is disputed. Some say excess build-up of nitrogen in soil; others say soil too acid. In any case a nutritional spray seems to cure it. Application of lime may help.

BLACK SPLASH (OR SPLOTCH) - fungus disease. Neutral Copper spray may help. Cut and carry away all diseased wood.

BUD DROP - unsuitable moisture conditions and sudden change in temperature often cause this. Excessive use of nitrogen, minor element deficiency, particularly Manganese are other causes. Insect infestation, especially of thrips, scale or aphids are also to blame.

LEAF YELLOWING AND DROP - same as above. Malathion

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